J. L. DOW.

FOREPART FORM FOR SHOE TURNING MACHINES.

APPLICATION FILED MAR. 29, 1911.

1,022,660. Patented Apr. 9, 1912.

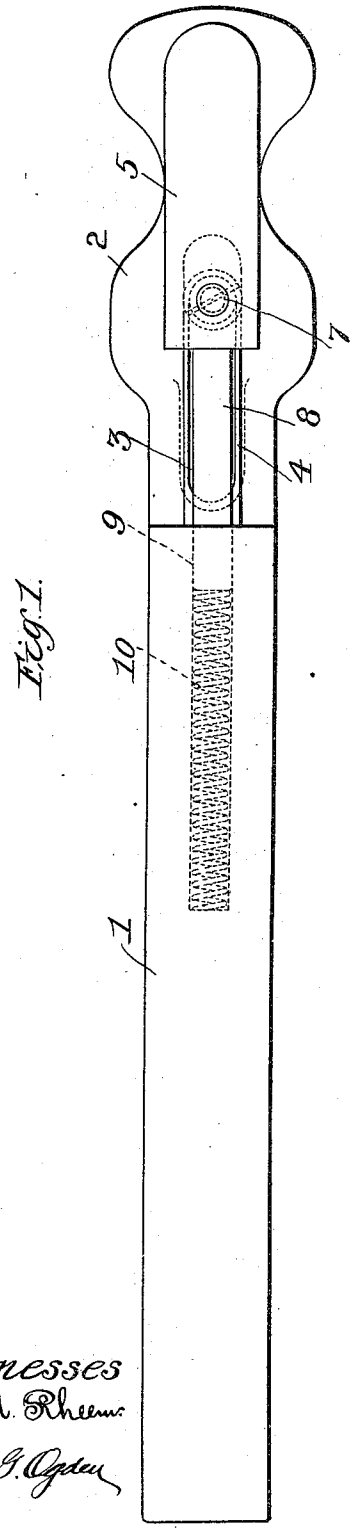

Fig. 1.

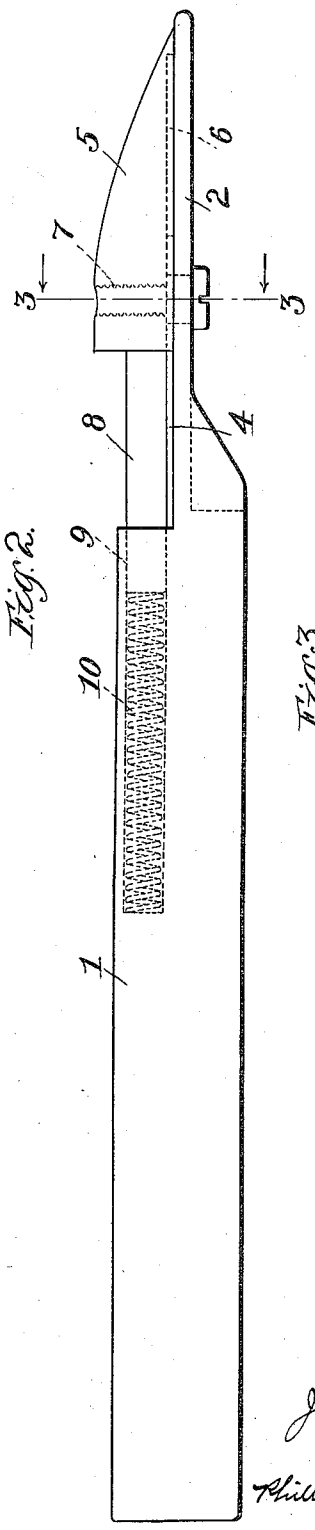

Fig. 2.

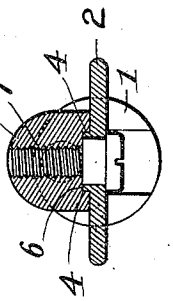

Fig. 3.

Witnesses

Wm. M. Rheems

Warren G. Ogden

Inventor

John L. Dow

by his attorneys

Phillips, Van Orsdel & Kiesel

UNITED STATES PATENT OFFICE.

JOHN L. DOW, OF MELROSE HIGHLANDS, MASSACHUSETTS, ASSIGNOR TO UNITED SHOE MACHINERY COMPANY, OF PATERSON, NEW JERSEY, A CORPORATION OF NEW JERSEY.

FOREPART-FORM FOR SHOE-TURNING MACHINES.

1,022,660. Specification of Letters Patent. Patented Apr. 9, 1912.

Application filed March 29, 1911. Serial No. 617,622.

To all whom it may concern:

Be it known that I, JOHN L. DOW, a citizen of the United States, residing at Melrose Highlands, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Forepart-Forms for Shoe-Turning Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to shoe turning machines and more particularly to improvements in forepart forms for such machines.

In machines of the type disclosed in Letters Patent of the United States No. 706,038, granted August 5, 1902, to United Shoe Machinery Company on an application of Andrew Eppler, Jr., the forepart of a turn shoe is turned by the use, in connection with other instrumentalities, of a form over which the forepart of a shoe is drawn before turning and which distends the shoe and enables the operator to turn it by seizing and drawing back the heel part of the shoe and the margin of the upper. The machine of the patent referred to is provided with a rotating head or turret having suitable means for holding a series of forepart forms of different sizes so that varying sizes of shoes may be operated on in the machine by bringing the proper sized form on the turret into operating position. In making children's turn shoes, however, the size variations are such that it is desirable to provide a single form which is adapted for use with a number of sizes.

The object of the present invention is to produce a forepart form upon which varying sizes of shoes may be turned with facility and certainty.

To this end the invention consists in an improved forepart form for shoe turning machines characterized by the novel features hereinafter described in connection with the illustrated embodiment of the invention and then particularly defined in the appended claims.

The preferred form of the invention is illustrated in the accompanying drawings in which—

Figure 1 is a plan of the form removed from the machine; Fig. 2 is a side elevation of Fig. 1; and Fig. 3 is a transverse section on the line 3—3 of Fig. 2, looking in the direction of the arrows.

In the embodiment of the invention illustrated in the drawings, the shank piece 1 carries, or is formed at one end with, a flat plate 2 which comprises the body portion of the form, that is, the portion which lies against the sole and extends within and to the toe of the forepart. The plate 2 is provided with a central longitudinal slot 3 (Fig. 1), having at its sides ribs 4 (Fig. 3) projecting from the upper face of the plate. A forepart filler block 5 is supported by the plate 2 and is longitudinally movable thereon. To provide for the longitudinal movement of the filler block, it is formed with a groove 6 (Fig. 3) at its lower face which fits over the ribs 4 on the plate, and a headed screw 7 is passed through the slot 3 from below and threaded into the block. The block is thus capable of movement longitudinally of the plate 2 and is guided in its movement by the slot and ribs.

The filler block 5, as shown in Fig. 3, is of substantially semi-circular cross section at its rear end and tapers forwardly and downwardly, as shown in Fig. 2. This block takes the place of the fingers of the workman which are placed within the forepart, in hand turning, and acts to fill and distend the forepart of the shoe during the turning operation.

It will be obvious to those skilled in the art that the position of the filler block 5, relative to the front or toe end of the plate 2, should be varied in accordance with the size of shoe being operated upon. While this variation in the position of the filler block may be taken care of by loosening the screw 7, shifting the block by hand to the desired position and then again tightening up the screw, obviously this is slow and inconvenient and is not a desirable way to accomplish the end sought. In accordance with the present invention, the form is adapted for varying sizes of shoes by leaving the screw 7 sufficiently loose to permit a free sliding movement of the filler block on the plate forming the body portion of the form and providing the filler block with a shank 8 which extends into a socket 9 (see dotted lines) formed in the shank piece 1, which socket contains a coiled spring 10 normally maintaining the filler block in position at the front or toe end of

the plate 2, as in the drawings. The advance or forward movement of the filler block, under the pressure of the spring 10, is limited by the engagement of the head of the screw 7 with the forward end of the slot 3. With this construction the filler block is mounted for yielding, longitudinal movement on the plate 2 and if a shoe is to be turned, having a forepart which is too small to receive the filler block while in the position shown in the drawings, the block will yield backwardly as the shoe is drawn over the form, nevertheless being advanced sufficiently within the forepart of the shoe to properly distend the upper for the turning operation. As the shoe is turned, the spring 10 advances the filler block and thus the forepart is kept fully distended throughout the whole of the turning operation.

The plate 2, forming the body portion of the form, is preferably made with a broad toe end so that it will properly distend the forepart of broad toed children's shoes. Just back of the toe end of the plate and about opposite the tip line of the shoe to be turned, the sides of the plate are preferably cut away, as shown in Fig. 1, which provides for easing the upper during the turning operation and preventing cracks forming in the upper especially in patent leather shoes.

Although the invention is illustrated in a form adapted to use in a particular type of machine, it should be understood that the invention is not limited to such use. Obviously changes may be made in the form, character and relation of the parts within the scope of the invention, the characterizing features of which are set forth in the claims by the intentional use of generic terms and expressions inclusive of various modifications.

What is claimed as new, is:—

1. A forepart form for shoe turning machines, comprising a plate forming a body portion, and a forepart filler block slidably mounted on said plate, substantially as described.

2. A forepart form for shoe turning machines, comprising a body portion formed of a flat plate provided with longitudinal ways, and a forepart filler block mounted for sliding movement on said ways, substantially as described.

3. A forepart form for shoe turning machines, comprising a plate forming a body portion, and a forepart filler block supported by the plate and mounted for yielding longitudinal movement thereon, substantially as described.

4. A forepart form for shoe turning machines, comprising a plate forming a body portion, a forepart filler block supported by and spring pressed toward the front or toe end of the plate, and means to limit the forward movement of said block under the spring pressure, substantially as described.

5. A forepart form for shoe turning machines, comprising a plate forming a body portion, and a forepart filler block, having a substantially semi-circular cross-section at its rear end and tapering downwardly toward its front or toe end, mounted for longitudinal movement on said plate, substantially as described.

6. A forepart form for shoe turning machines, comprising a longitudinally slotted flat plate forming a body portion, a forwardly and downwardly tapered forepart filler block secured to said plate by means passing through its slot, and a spring at the rear of said block for yieldingly holding it normally at the front or toe end of the plate, substantially as described.

7. A forepart form for shoe turning machines, comprising a plate forming a body portion and a self adjusting filler block, mounted on said plate, substantially as described.

8. A self adjusting forepart form for shoe turning machines comprising two relatively movable members, one of said members being adapted to yield backwardly as the shoe is drawn over the form preparatory to turning, substantially as described.

JOHN L. DOW.

Witnesses:
FREDERICK L. EDMANDS,
JAMES R. HODDER.